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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,541	10/11/2001	Norman A. Gardner	D8357-00005	2377
8933	7590	05/06/2004	EXAMINER	
DUANE MORRIS, LLP IP DEPARTMENT ONE LIBERTY PLACE PHILADELPHIA, PA 19103-7396			KOSLOW, CAROL M	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/975,541

Applicant(s)

GARDNER ET AL.

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 6,7,13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/31/02.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

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The German and French references cited in the information disclosure statement of 31 January 2002 have been considered with respect to the discussion of the references given in the specification.

The disclosure is objected to because of the following informalities:

The use of the trademarks "Cartax CXPD", "Eccowhite", "Lawter resin", "Airvol 203", "MM14", luminescent pigments "K", "S", "ZH", "GE", "LLZ" and "Surfynol 104PG" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology. Appropriate correction is required.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claims 3, 5, 9, 10 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support in the specification for claiming the amount of phosphor pigment is less than 1 wt%. The specification teaches on pages 18 and in the examples the minimum amount of the pigment is about 1 wt%. This range does not support the range of claims 3 and 10 and for the values less than about 1 encompassed by the range of less than 5 wt% in claim 9. The methods of countering potential contamination in claim 12 are not found in the specification. Finally, claim 5 is not supported by the specification. The specification defines the volatile

vehicle as one that evaporates away upon application. Thus the carrier cannot contain a resin or a conductive agent since they do not evaporates away upon application.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 8, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 3,881,941 (Kernohan) in view of U.S. patent 5,554,842 (Connell et al).

Kernohan teach an ink comprising 1-5 wt% of europium activated sodium polytungstate phosphor pigment. Column 3, lines 27 teaches the ink can be used in automated postal sorting systems, thus the rest of the ink is composed of components conventional present in such inks, such as a solvent and resin. The figure shows that the taught phosphor pigment has the claimed property. The reference does not teach the ink is ink-jettable, the particle size of the phosphor pigment nor the claimed process. Connell et al teach an ink-jettable phosphor containing ink for use in automated postal sorting systems and indicates it was conventional as of 1996 to use ink-jet inks in automated postal sorting systems. Accordingly, one of ordinary skill in the art would have found it obvious to use 1-5 wt% of europium activated sodium polytungstate phosphor pigment in ink-jet ink compositions and to grind or mill this phosphor to a size of less than 1 micron, which is the maximum size of a pigment in an ink-jet ink. It is well known in the art that such compositions can contain conductive agents in order to provide the conductivity necessary for it to be emitted by an ink-jet printer. Therefore one of ordinary skill in the art would have

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found it obvious to mill europium activated sodium polytungstate phosphor pigment to a size that is less than 1 micron, and to combine the milled pigment with the other components of an ink-jet ink, such as a solvent, a resin and a conductive agent, where the amount of the pigment is 1-5 wt%.

Claims 6, 7, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

There is no teaching or suggestion in the cited art of record of a latent security formulation where the claimed phosphor pigment is cropped to the particles of the resin binder. There is no teaching or suggestion in the cited art of record of a latent security formulation where the claimed phosphor pigment has the properties of claims 7 and 14.

The indicated allowability of claims 7 and 14 may be withdrawn once applicants have provided the generic composition of luminescent pigments K, S, ZH, GE and LLZ.

U.S. patents 6,402,986; 5,837,042 and 5,542,971 are cited as of interest since they teach a latent security formulation comprising a phosphorescent metal chelate having the claimed property, but metal chelates are not pigments. U.S. patent 5,837,042 also shows it is known in the art to add conductive agents or electrolytes to ink-jet inks to provide the conductivity to the ink necessary for it to emitted by an ink-jet printer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at (571) 272-1362.

The fax number for all official communications is (703) 872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk  
April 30, 2004

  
C. Melissa Koslow  
Primary Examiner  
Tech. Center 1700